SHORT COMMUNICATION

Sensory evaluation and nutritive value estimation of food products developed from the edible blossoms of *Allium cepa*, *Carica papaya* and *Cucurbita maxima*

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ABSTRACT

Flowers are conceived of as a sort of "new vegetable" in the food chain and one of the most promising novelties for satisfying the growing need for food innovation both in terms of organoleptic and nutraceutical profiles. Keeping this in mind, this study involved the attempt to convert the edible flowers of Allium cepa, Carica papaya and Cucurbita maxima into ten different ethnic food products, namely, onion flower mustard pickle, onion flower chili vinegar pickle, onion flower chaat masala, pumpkin flower jam, pumpkin flower sweet and sour pickle, pumpkin flower powder phuluri, pumpkin flower powder laddoo, papaya flower sweet and sour pickle, papaya flower mustard pickle (sour) and papaya flower powder soup. An organoleptic study of the developed food products showed that papaya flower powder soup had the highest mean hedonic score for all the attributes with the highest overall acceptability. In contrast, the papaya flower mustard pickle had the lowest acceptability. According to the Hedonic R analysis, the sweet and sour pickle pumpkin flower and papaya flower powder soup had overall higher preference values than the other tested pickles and powders. The flower-based food products recorded low in fat and moderate in protein, carbohydrate and soluble fibre. The food products were found rich in β-carotene and ascorbic acid, and are good sources of calcium, potassium, phosphorous, manganese and copper. Overall, the prepared flower-based food products, ethnic to Indian cuisine, are nutrient-dense and are likely to be acceptable, affordable and sustainable potential nutritional sources.

Keywords: Edible flowers, food composition, food products, Hedonic R analysis, sensory evaluation, sustainable nutrition.